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ORIGINAL PAPER

The Need, Feasibility and Willingness to Explore "Meditation on Twin Hearts" as a Self-administered Tool for Mental Health Management among Transgender Women: An Exploratory Survey

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Abstract
Hijras are the transgender community and have been socio-economically marginalized and hence their mental healthcare needs to be addressed. This was a descriptive, qualitative study, conducted in Mysore, India to examine the mental health status of 33 transgender women (TGW) and their response to the "Meditation on Twin Hearts (MTH)" intervention. Assessment of anxiety, depression and suicidality was carried out before the meditative session followed by a single session of MTH. Their feedback on meditation experience was collected, coded, and transformed into quantitative data. Among total participants, 39.4% of TGW exhibited severe anxiety, 21.2% has severe depression and 75.8% of them were at suicidal risk. Depression was positively correlated with anxiety and suicidal behavior. Most participants reported MTH was useful with signs of improvements in mental state. Thus, a single session of MTH has shown good signs of improvement in mental state among TGW.

Keywords Anxiety · Depression · *Hijra* · Loving kindness · *Prana* · Pranic Healing · Suicidality

Introduction

In the socially constructed gender norms, the individuals can be classified as male, female and transgenders. The ancient text of India *Manu Smriti* explains the biological origins of the transgender community. Hindu religious texts, *Puranas* mentions the existence of transgenders (*Kinnars*) as *devas* of music and dance (Singh & Kumar, 2020). Sanskrit epics of ancient India, the *Mahabharata* explicates that society allowed transgenders of a third sex (*Tritiya-Prakriti*) to live flexibly according to their gender identity. In Mahabharata, the Pandava king Arjuna lived as transgender, named Brihanala. Hindus and Vaishnavas treated people of third sex as spiritual entities, and as parts and parcels of God. Based on *Ramayana*, privileges were given to transgenders to confer blessings on special functions like marriage and childbirth (Wilhelm, 2004). The holy places of Mecca and Medina were guarded by transgenders, and they received superior status from people. Misconceptions and discrimination among westerners criminalized the transgender community and civil rights were denied, then the prejudice among transgenders evolved (Vats & Purohit, 2017).

Transgender women (TGW), locally known as *Hijras*, are a marginalized section of Indian community (Kota et al., 2020). TGW has a history of sex work and experiences of stigma and violence with a high incidence of HIV infection, leading to psycho-social distresses (Ganju & Saggurti, 2017). Studies have reported that TGW faces discrimination in accessing healthcare services due to institutional and/or individual prejudices (Cicero et al., 2019). All these factors collectively lead to a high expected prevalence of mental health conditions including anxiety, depression and suicidal behaviour.

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Cognitive Behavior Therapy (CBT) is the accepted gold standard for intervention for generalized anxiety but remains inaccessible to many due to several factors including prohibitively exorbitant costs, the predominance of a face-to-face model of delivery, and the paucity of trained personnel. Currently, anxiolytic drugs and anti-psychotics are mostly used for anxiety and depression treatment (Edmonds et al., 2020). These are again expensive and require regular visits to a healthcare provider. Hence, complementary therapies like meditation, which could be self-administered, inexpensive and accessible everywhere is beneficial (Tarrant et al., 2019).

Meditation practices aim at spirituality along with the cultivation of inner peace, concentration, positive emotions and they have been reported to reduce stress, agitation and negative emotions (Buttle, 2015). The moderating role of mindfulness and self-compassion on negative psychological effects among gender non conformed adults have been demonstrated (Keng & Liew, 2017). Loving-kindness meditation can positively bring emotional flexibility, rumination, emotional regulation and psychological flexibility (Hinton et al., 2013).

Meditation on Twin Hearts (MTH) is a core meditation module in Pranic Healing and Arhatic Yoga and is aimed at achieving cosmic consciousness (Sui, 2008). It also serves to harmonize the world through the blessing of the entire earth with loving-kindness. It is based on the principle that some major *chakras* are the gateway to higher levels of consciousness. *Chakras* are energy vortices, which have physical, psychological and spiritual functions. To activate cosmic consciousness, it is necessary to activate the crown *chakra*. The "twin hearts" in MTH refers to the heart *chakra*, and the crown *chakra* (Sui, 2009). In principle, when a person practices 'Meditation on Twin Hearts', divine energy fills the practitioner with love and power. This guided meditation includes components of loving-kindness, open awareness, and self-healing imagery.

Meditation on Twin Hearts has been shown to help female adolescents in mitigating perceived stress and enhancing the quality of life (Jois et al., 2017). Participants taking part in MTH experienced immediate cognitive improvements (Tarrant et al., 2019), helps in improving Emotion Regulation in healthy subjects (Valim et al., 2019). Dialysis patients showed less anxiety, depression levels when they practiced MTH (Dehghani et al., 2015). Gamma activation of the brain increased by practicing MTH (Tarrant et al., 2016). During the recent pandemic COVID 19, medical practitioners have benefitted in their mental health status by practicing MTH (Bhatia, 2020). This study aimed at measuring the mental healthcare needs among the TGW and assessed the feasibility and willingness of using Meditation on Twin Hearts as a self-administered modality for addressing their mental healthcare needs.

Methods

Research Design

This was a descriptive, qualitative study conducted among the TGW in South India between March and June 2019. Flow chart about how the study was carried out is provided in Fig. 1.

Procedure

Permission was obtained from the Institutional Ethics Board, Public Health Research Institute, Mysuru to conduct this study (2019-03-13-48). Since access to the transgender community was difficult, study coordinators, including a psychologist, held in-person meetings with the Transgender community leaders. They explained the purpose and potential benefits of the study, and requested them to invite the members of their community for a free introductory talk about MTH. The study team is led by Research Head, World Pranic Healing Foundation-India, Research Centre, Mysore. They explained about the study

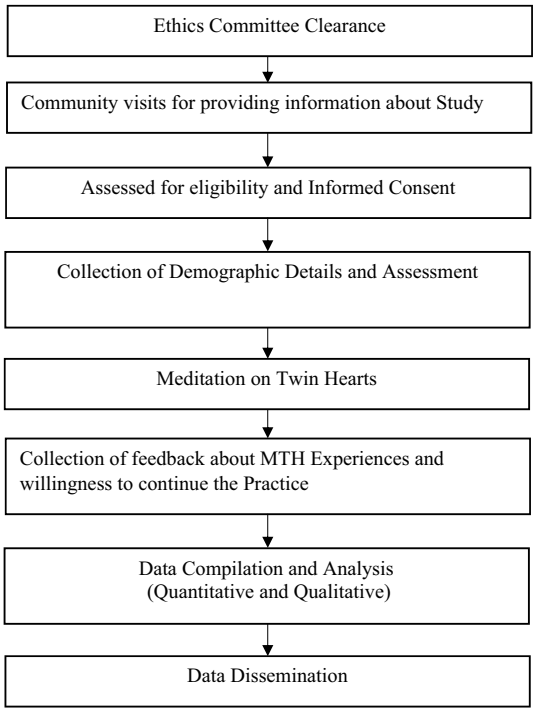

Fig. 1 Study flow chart

to the transgenders in local language (*Kannada*) using a PowerPoint presentation for the ease of understanding.

Inclusion Criteria

1. Transgender belonging to the Hijra community.
2. Participants ≥ 18 years of age.
3. Participants willing to give informed consent.

Exclusion Criteria

1. TGW having Chronic heart ailments were excluded.
2. Participants quitting the MTH practice in the middle.

Participants

After collecting demographic details, 33 self-identifying TGW of mean age of 31.21 years (± 9.77) from Mysuru district, Karnataka, India was recruited for this study based on inclusion and exclusion criteria. 6.1% of them are intersex and 93.9% are Transgender Women, 51.5% of them have not undergone gender reassignment surgery and 48.5% of them have undergone the surgical procedure (Table 1).

Before the meditation session, mental health assessment tools namely, Generalized Anxiety Disorder (GAD)-7, Patient Health Questionnaire (PHQ)-9 and Suicidal Behaviors Questionnaire-Revised (SBQ-R) were administered by a psychologist. A single session of MTH was conducted to TGW. After the meditation session, participants' feedback on their mental health care needs, meditation experience, and willingness to continue MTH were documented. All the questioners were available in the local language (Kannada).

Pre-assessment Measures

Generalized Anxiety Disorder (GAD)-7 questionnaire (Spitzer et al., 2006): The GAD-7 is a validated 7-item self-reporting anxiety questionnaire. Though originally developed to diagnose a generalized anxiety disorder, the GAD-7 has also been proved to have good sensitivity and specificity as a screener for panic, social anxiety, and post-traumatic stress disorder. It included 7 core symptoms of generalized anxiety disorder reported by the subjects based on the feeling of how often they have been bothered during the last 2 weeks. 4-point Likert scale of "Not at all" to "nearly every day" with the scoring of 0–3 was available for the subject for each item with the total score ranging from 0–21, and the severity of scores represented as 0–4 minimal, 5–9 Mild, 10–14 Moderate, 15 & above severe. In GAD-7, the confirmatory factor analysis confirmed the one-dimensional structure and the factorial invariance for gender and age, the internal consistency (r = 0.64) across subgroups were identical and the intercorrelations with the PHQ-2 (r = 0.64) and Rosenberg Self-Esteem scale (r = 0.43) were significant (Löwe et al., 2008).

Patient Health Questionnaire (PHQ)-9 for depression (Kroenke et al., 2001): It is a reliable and valid measure of depression. It comprises of 9 items, each corresponding to anhedonia (having little interest or pleasure in doing things), depressed mood, sleep disturbance, poor energy, appetite change, feelings of failure, trouble concentrating, psychomotor changes (moving or speaking slowly or the opposite—feeling fidgety or restless), and suicidal ideation. The depression level will be identified based on the extent of agreement of participant over these problematic symptoms (problem over the past 2 weeks) on four categories: (a) not at all, (b) several days, (c) more than half the days, or (d) nearly every day. Total score can range from 0 to 27 and the severity scores can be 0–4 none, 5–9 mild, 10–14 moderate, 15–19 moderately severe, and above 19 being severe depression. PHQ-9 to have an internal consistency of 0.89 and test–retest reliability of 0.84 (Kroenke et al., 2001).

Suicidal Behaviors Questionnaire-Revised (SBQ-R) (Osman et al., 2001): It is a brief 4-item self-report measure of past suicidal behavior and used for screening and identification of high-risk of suicidal behaviors in a population such as a lifetime suicidal ideation and suicide attempt, frequency of suicidal ideation over the past 12 months, the threat to suicidal behaviour, and self-reported likelihood of suicidal behaviour. Suicidal risk can be identified based on the response score of the participant. The responses are given on a scale from 1 to 3 for the first three questions, and from 0 to 6 for the final question. The total score ranges from 3 to 18 points, scores over 7 (non-clinical groups) are high risk for suicidal behaviour. The psychometric properties were satisfactory, with the internal consistency of α = 0.84.

Meditation Procedure

Before practicing meditation, the participants were introduced to various steps in Meditation on Twin Hearts as guided by Sui (2015) as follows:

Table 1 Demographic characteristics of participants

Variable	Category	N	%	Mean age (in years)	SD
Taluk	Hunsur	13	39.4	32.3	13.89
	T. Narispur	20	60.6	30.5	6.12
Gender at birth	Intersex	2	6.1	35.0	18.38
	TGW	31	93.9	30.9	9.46
Surgical procedure	NURGS	17	51.5	29.2	8.21
	URGS	16	48.5	33.4	11.02

NUGRS not undergone gender reassignment surgery, *UGRS* undergone gender reassignment surgery

1. Do physical exercise for about 5 min.
2. Sit comfortably on the chair with your spine erect.
3. Sensitise your hands to feel the prana.
4. Follow the instruction of MTH recording guided by Sui (2015).

MTH Procedure

1. Invoke of divine blessing.
2. Connect the tongue to the palate.
3. Activating heart and crown chakra.
4. Blessing the entire earth with loving kindness.
5. Chanting Mantra Om (in silence).
6. Release the excess energy by blessing the entire earth with light, love and peace.
7. Thanksgiving prayer.

The guided meditation will take 21 min to complete. The meditation recording was in local language (Kannada) for easy understanding for the participants. Once the meditation was completed, the participants were asked to do physical exercise for 5 min again.

Qualitative Phase (Post-meditation Enquiry)

After the MTH session, participants were encouraged to write about how they felt during the meditation. Qualitative enquiry regarding the feedback on mental health care needs and willingness to continuing MTH was enquired in the local language (Kannada).

Data Analysis

Quantitative Data Analysis

For quantitative analysis, descriptive statistics were used to analyze the various demographic variables and severity of anxiety, depression and suicidality scores. Kendall's rank correlation coefficient was used to assess the correlation between depression, anxiety, and suicidal behavior. Data analysis was performed using SPSS 21.

Qualitative Data Analysis

For the meditation experiences, the responses of TGW were grouped into categories and coding was done based on the presence or absence of a particular response under the category. Presence of particular response is coded as '1' and absence as '0'. The categories were judged by two independent researchers.

The MTH experiences from the statements of the participants were sub-categorized into:

1. Positive affective experiences. The positive feelings included in these subcategories were "happiness", "love", "likeness" and "nice". The positive experiences are coded as '1' and those didn't feel the same experience as '0'.
2. Awareness of mind and body. It is the perception of the current condition of body and mind of participants, and included conditions like "felt peace", "feeling better", "felt calm" and "felt better in my body". The awareness of mind and body were coded as '1' and those didn't feel the same experience as '0'.
3. Prayerful experiences. Religious thoughts during the meditation experiences are called prayerful experiences, and the thoughts like "Jesus, where ever I am going & coming, please protect me"; "I was blessed by God. I could bless others on the planet".

The subcategories of feedback on meditation experiences included positive affective experience, awareness of mind and body, and prayerful experiences. These are converted into descriptive format.

Questions were asked to study participants queries regarding mental health care needs like "Have you ever felt the need to visit the doctor or seek professional help for managing any mental health-related issue?" To know about willingness to continue MTH, two more questions were asked like "was the meditation session today useful for you?" and "will you be willing to continue with the meditation practice to manage your anxiety and stress?" The response for both queries and willingness part was collected in Yes/ No format. The feedback after meditation subcategories in the form of qualitative data were converted into quantitative format.

Results and Discussions

Before meditation was introduced to TSW, their mental health status was assessed using GAD-7, PHQ-9 and SBQ-R questionnaire and the results are tabulated in Table 2. Mean scores in Anxiety (13.28 ± 3.83), depression (14.18 ± 6.09) and suicide behavior (9.79 ± 4.35) of TGW were calculated. Among them, 39.4% possessed severe anxiety, 45.4% had moderate anxiety. In the case of the assessment of severity of depression, 21.2% has severe depression, 30.3% had moderately severe depression and 30.3% with moderate depression. In the assessment of suicidal behavior, the majority (75.8%) of the participants were at suicidal risk (Table 2). Depression scores correlated significantly with those of anxiety ($\tau = 0.438$, $p = 0.001$) and suicidality ($\tau = 0.304$, $p = 0.017$). Correlation was significant ($\tau = 0.256$, $p = 0.048$) between anxiety and suicidal behavior (Table 3).

After a single session of MTH, feedback on meditation experiences were obtained from TGW and the results are

Table 2 Severity of anxiety, depression and suicide behavior among transgender women in Mysuru, India

Variable	Mean ± SD	Severity	Total	%
Anxiety	13.28 ± 3.83	Minimal (0–4)	1	3
		Mild (5–9)	4	12.1
		Moderate (10–14)	15	45.4
		Severe (15–21)	13	39.4
Depression	14.18 ± 6.09	None (0–4)	1	3
		Mild (5–9)	5	15.2
		Moderate (10–14)	10	30.3
		Moderately severe (15–19)	10	30.3
		Severe (20–27)	7	21.2
Suicide behavior	9.79 ± 4.35	Not at risk (< 7)	8	24.2
		At risk (> 7)	25	75.8

Table 3 Kendall's rank correlation of depressions, anxiety and suicidal behavior

Scales	Scales	Correlation coefficient	P value
Depression	Anxiety	0.438***	0.001
Depression	Suicide	0.304*	0.017
Anxiety	Suicide	0.256*	0.048

*P < 0.05, ***P < 0.001

Table 4 Meditation experiences reported by TGW after meditation

Meditation experiences	Response	N (27)	(%)
Awareness of mind and body	Experienced	17	62.96
	Not experienced	10	37.03
Positive affective experience	Experienced	16	59.26
	Not experienced	11	40.74
Prayerful experience	Experienced	2	7.40
	Not experienced	25	92.59

tabulated in Table 4. Twenty-seven TGW reported meditation experiences and it include awareness of mind and body (62.96%) positive affective experiences (59.26%) and Prayerful experiences (7.40%). Many of the TGW (96.9%) reported that a single meditation session was useful for them. In response among TGW need to visit doctors for mental health-related issues, 72.72% felt the need of visiting a doctor. All the participants (100%) responded that they were willing to continue with the meditation practice to manage their mental health status (Table 5).

In this study, we observed a high prevalence of depression, anxiety and suicidal thoughts among TGW. This agrees with international reports mentioning transgender

Table 5 Feedback of TGW after meditation

Feedback after MTH	Response	N (33)	%
Usefulness of MTH	Useful	32	96.96
	Not useful	1	3.03
Professional help	Need to visit doctor	24	72.72
	No need	9	27.27
Willingness to continue MTH	Yes	33	100

community was vulnerable to depression, anxiety and emotional distress (Stanton et al., 2021; White Hughto et al., 2017). Several variables are related to depression among TGW. Among them, lack of social support (family and peer), violence, sex work and gender identity are the major one. Physical violence and discrimination were found to be associated with suicidal attempts among TGW (Gomes de Jesus et al., 2020). A positive correlation between depression with anxiety and suicidality was observed in the current study. Budge et al., (2013) reported 51.4% depression and 40.4% anxiety among TGW. However, in our current study, the values exceed the reported ones, suggesting TGW need immediate mental health care interventions. We also observed despite the high prevalence of mental wellbeing related issues, only a small fraction of TGW sought professional help, which might be attributed to perceived discrimination by healthcare workers (Jaffee et al., 2016).

In the present study, 96.9% of the TGW reported MTH was very useful for them to control their mental health status. Novice meditators reported a significant decrease in anxiety and increase in happiness when practicing MTH. sLORETA analysis of the brain of MTH practitioners resulted in a decrease in gamma and an increase in alpha activation pattern of the brain (Tarrant et al., 2019). Alpha waves in the brain reduce depression and improve cognition (Choi et al., 2011). A study using EEG electro cap described that MTH has positive influence on cognitive performance of participants (Tarrant et al., 2019). Valim et al. (2019) reported participants practicing single session of MTH, were effective in suppressing the negative emotions and increasing positive emotions. In the case of adolescents, MTH was effective in cultivating mental health and quality of life. The increased awareness due to the long-term meditation practice made them perceive different pranic energy experiences, feeling of peace, happiness and improved relationships (Jois et al., 2017). In this study, some participants experienced tingling sensations in their palms during meditation practice while, blessing the earth.

In this study, the participants of a single session of Meditation on Twin Hearts expressed the feelings like happy, nice, like the program (Positive affective experiences); calm, body and mind became fresh, felt Peace (awareness of Mind and Body); and 'blessed by God, where ever I am going, please protect me' (Prayerful Experiences).

Loving-kindness meditation suppresses the negative thoughts and enhances positive thoughts (Kok & Singer, 2017). Meditation is a complex emotional and attention regulatory training system developed for various ends, including the cultivation of well-being and emotional balance (Chételat et al., 2018). Mindfulness-based stress reduction is an effective intervention for downgrading the symptoms of stress, depression, and anxiety across a wide range of clinical populations (Liu et al., 2018). Role of meditation in controlling symptoms and dysfunctional beliefs and improve attention skills. These skills provide more alertness and result in better meta-cognitive awareness in perceiving thoughts, sensations, and feelings through an absorbed ruminative state of mind. Similarly, guided meditation can be used as a resource for patients with suicidal behaviours (Witt et al., 2019). Eastern perspective describes meditation as a device in developing spirituality by including elements of inner peace, concentration, positive emotions, along with reducing stress, agitation and negative emotions (Arik, 2020).

International programs, such as Transgender Resources and Neighborhood Space program that were offered in San Francisco for promoting health in transwomen, also had meditation as a part of its curriculum. Gay and Lesbian Vaishnava Association also providing information about transgenders in a *vedic* perspective and encouraged the transgender community to lead a life in society by the application of *Vaishnava* tradition (Gay and Lesbian Vaishnava Association, 2020; Nemoto et al., 2005). Moreover, the prejudice against the community by society at large, and the discrimination they face even with profession healthcare providers indicate that a spiritual intervention like meditation may be more readily accepted by the community. In our study, after practicing a single session of MTH, the participants provided positive feedback regarding their meditative experience, along with 100% willingness for further exploring the technique for achieving peace and calmness.

Conclusion

A single session of Meditation on Twin Hearts was found useful by TGW to mitigate their mental health conditions and all of them are willing to continue the practice. Future research should be directed towards conducting larger controlled trials using MTH as an intervention for TGW to improve their mental wellbeing. How the experiences of MTH influencing the quality of life and wellbeing among TGW also needs to be investigated.

Limitations

This study participants of TGW involved only from two Taluks of Mysuru, India. Other limitations in this study includes, absence of repeated exposure to MTH, small sample size and study design without control group.

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Author Contributions All authors contributed to study conception and design. Data collection, analysis, manuscript first draft was performed by Neha Joshi, Srikanth Jois and Vinu Vijayakumar, Participant recruitment, Informed Consent was done by Fazila Begum, Statistical analysis and Qualitative analysis was done by Vinu Vijayakumar and Kiran Kumar. All authors read and approved the final manuscript.

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Declarations

Conflict of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Ethical Approval Permission was obtained from the Institutional Ethics Board, Public Health Research Institute, Mysuru to conduct this study (2019-03-13-48).

Informed Consent Informed consent was obtained from all the participants with service users and participant identification has been omitted.

References

Arik, Y. M. (2020). *Design for positive self-help intervention experience with the investigation of meditation-oriented mental health applications*. A Thesis Submitted to the Graduate School of Natural and Applied Sciences of Middle East Technical University.

Bhatia, A. (2020). Meditation during a pandemic. *British Dental Journal, 229*(1), 9.

Budge, S. L., Adelson, J. L., & Howard, K. A. (2013). Anxiety and depression in transgender individuals: The roles of transition status, loss, social support, and coping. *Journal of Consulting and Clinical Psychology, 81*(3), 545.

Buttle, H. (2015). Measuring a journey without goal: Meditation, spirituality, and physiology. *BioMed Research International, 2015*, 891671. https://doi.org/10.1155/2015/891671

Chételat, G., Lutz, A., Arenaza-Urquijo, E., Collette, F., Klimecki, O., & Marchant, N. (2018). Why could meditation practice help promote mental health and well-being in aging? *Alzheimer's Research & Therapy*. https://doi.org/10.1186/s13195-018-0388-5

Choi, S. W., Chi, S. E., Chung, S. Y., Kim, J. W., Ahn, C. Y., & Kim, H. T. (2011). Is alpha wave neurofeedback effective with randomized

clinical trials in depression? A Pilot Study. *Neuropsychobiology, 63*(1), 43–51.

Cicero, E. C., Reisner, S. L., Silva, S. G., Merwin, E. I., & Humphreys, J. C. (2019). Healthcare experiences of transgender adults: An integrated mixed research literature review. *Advances in Nursing Science (ANS), 42*(2), 123. https://doi.org/10.1097/ANS.0000000000000256]

Dehghani, S., Amini, K., Shakibazade, E., & Faghihzade, S. (2015). Effects of two heart meditation exercise on anxiety among patients undergoing hemodialysis. *Preventive Care in Nursing & Midwifery Journal, 4*(2), 56–65.

Edmonds, M., McCall, H., Dear, B. F., Titov, N., & Hadjistavropoulos, H. D. (2020). Does concurrent medication usage affect patient response to internet-delivered cognitive behaviour therapy for depression and anxiety? *Internet Interventions, 19*, 100302. https://doi.org/10.1016/j.invent.2019.100302

Ganju, D., & Saggurti, N. (2017). Stigma, violence and HIV vulnerability among transgender persons in sex work in Maharashtra, India. *Culture, Health & Sexuality, 19*(8), 903–917. https://doi.org/10.1080/13691058.2016.1271141

Gay & Lesbian Vaishnava Association. (2020). Summary of vedic references, 35. Retrieved October 20, 2020, from http://www.galva108.org/summary-of--vedicreferences.

Gomes de Jesus, J., Belden, C. M., Huynh, H. V., Malta, M., LeGrand, S., Kaza, V. G. K., & Whetten, K. (2020). Mental health and challenges of transgender women: A qualitative study in Brazil and India. *International Journal of Transgender Health, 21*(4), 418–430. https://doi.org/10.1080/26895269.2020.1761923

Hinton, D. E., Ojserkis, R. A., Jalal, B., Peou, S., & Hofmann, S. G. (2013). Loving-kindness in the treatment of traumatized refugees and minority groups: A typology of mindfulness and the nodal network model of affect and affect regulation. *Journal of Clinical Psychology, 69*(8), 817–828. https://doi.org/10.1002/jclp.22017

Jaffee, K. D., Shires, D. A., & Stroumsa, D. (2016). Discrimination and delayed health care among transgender women and men. *Medical Care, 54*(11), 1010–1016. https://doi.org/10.1097/MLR.0000000000000583

Jois, S. N., Moulya, R., & Lancy, D. (2017). Mitigation of perceived stress and enhancement of quality of life among female adolescents using Meditation on Twin Hearts. *Indian Journal of Public Health Research & Development, 8*(3), 229–234.

Keng, S. L., & Liew, K. W. L. (2017). Trait mindfulness and self-compassion as moderators of the association between gender nonconformity and psychological health. *Mindfulness, 8*(3), 615–626. https://doi.org/10.1007/s12671-016-0639-0

Kok, B. E., & Singer, T. (2017). Phenomenological fingerprints of four meditations: Differential state changes in affect, mind-wandering, meta-cognition, and interoception before and after daily practice across 9 months of training. *Mindfulness, 8*(1), 218–231. https://doi.org/10.1007/s12671-016-0594-9

Kota, K. K., Salazar, L. F., Culbreth, R. E., Crosby, R. A., & Jones, J. (2020). Psychosocial mediators of perceived stigma and suicidal ideation among transgender women. *BMC Public Health, 20*(1), 125. https://doi.org/10.1186/s12889-020-8177z

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*, 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

Liu, Z., Sun, Y. Y., & Zhong, B. L. (2018). Mindfulness-based stress reduction for family carers of people with dementia. *Cochrane Database of Systematic Reviews, 8*, 1–52. https://doi.org/10.1002/14651858.CD012791.pub2

Löwe, B., Decker, O., Müller, S., Brähler, E., Schellberg, D., Herzog, W., & Herzberg, P. Y. (2008). Validation and standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the general population. *Medical Care, 46*(3), 266–274. https://doi.org/10.1097/MLR.0b013e318160d093

Nemoto, T., Operario, D., Keatley, J., Nguyen, H., & Sugano, E. (2005). Promoting health for transgender women: Transgender Resources and Neighborhood Space (TRANS) program in San Francisco. *American Journal of Public Health, 95*(3), 382–384. https://doi.org/10.2105/AJPH.2004.040501

Osman, A., Bagge, C. L., Gutierrez, P. M., Konick, L. C., Kopper, B. A., & Barrios, F. (2001). The Suicidal Behaviors Questionnaire-Revised (SBQ-R): Validation with clinical and nonclinical samples. *Assessment, 8*(4), 443–454. https://doi.org/10.1177/107319110100800409

Singh, H., & Kumar, P. (2020). Hijra: An understanding. *Journal of Psychosocial Research, 15*(1), 79–89. https://doi.org/10.32381/JPR.2020.15.01.6

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine, 166*(10), 1092–1097. https://doi.org/10.1001/archinte.166.10.1092

Stanton, A. M., Batchelder, A. W., Kirakosian, N., Scholl, J., King, D., Grasso, C., Potter, J., Mayer, K. H., & O'Cleirigh, C. (2021). Differences in mental health symptom severity and care engagement among transgender and gender diverse individuals: Findings from a large community health center. *PLoS ONE, 16*(1), e0245872.

Sui, C. K. (2008). *Om manipadme hum*. Bangalore: Institute of Inner Studies.

Sui, C. K. (2009). *The Chakras and their Functions*. Institute for Inner Studies Publishing Foundation India Private Limited.

Sui, C. K. (2015). *The ancient science and art of Pranic Healing*. Institute of Inner Studies Publishing Foundation India Private Ltd.

Tarrant, J. M., Raines, N., & Blinne, W. R. (2019). The effects of meditation on twin hearts on P300 values: A repeated measures comparison of nonmeditators and the experienced. *Integrative Medicine: A Clinician's Journal, 18*(2), 36.

Tarrant, J., Raines, N., Blinne, W., & Perez, N. (2016). sLORETA and psychological functioning impacts from meditation on twin hearts: Differences between novice and experienced meditators. *Integrative Medicine, Mendota Heights, 15*(1), 46. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4818069/

Valim, C. P., Marques, L. M., & Boggio, P. S. (2019). A positive emotional-based meditation but not mindfulness-based meditation improves emotion regulation. *Frontiers in Psychology, 10*, 647.

Vats, N. K., & Purohit, M. (2017). Right to education and employment: A step towards empowering transgender community. *The Kathmandu School of Law Review, 5*, 113.

White Hughto, J. M., Pachankis, J. E., Willie, T. C., & Reisner, S. L. (2017). Victimization and depressive symptomology in transgender adults: The mediating role of avoidant coping. *Journal of Counseling Psychology, 64*(1), 41.

Wilhelm, A. D. (2004). *Tritiya-Prakriti: People of the third sex: Understanding homosexuality, transgender identity and intersex conditions through Hinduism*. Xlibris Corporation.

Witt, K., Boland, A., Lamblin, M., McGorry, P. D., Veness, B., Cipriani, A., et al. (2019). Effectiveness of universal programmes for the prevention of suicidal ideation, behaviour and mental ill health in medical students: A systematic review and meta-analysis. *Evidence-Based Mental Health, 22*(2), 84–90. https://doi.org/10.1136/EBMENTAL-2019-300082

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